

# Notice of Allowability

Application No.

10/006,385

Examiner

Ling-Siu Choi

Applicant(s)

KELLER ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed November 18, 2004.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ The drawings filed on 07 March 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

DETAILED ACTION

1. This Office Action is in response to the Amendment filed November 18, 2004. Claims 1-19 are now pending, wherein claims 1-10 are drawn to a composition comprising iron nanoparticles dispersed homogeneously throughout; claims 11-16 are drawn to a method to form the composition; claims 17-19 are drawn to a composition having iron nanoparticles dispersed homogeneously throughout.

*Allowable Subject Matter*

2. Claims 1-19 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: Ting et al. (US 5,389,400).

The present invention relates to a composition obtained from heating to a temperature of from about 300°C and above a mixture of

(a)	ferrocenylethynyl containing component	1,4-bis(ferrocenyl)butadiyne, 1-ferrocenylethynyl-4-(phenylethynyl)benzene, 1,3-bis(ferrocenylethynyl)benzene
(b)	aromatic-acetylene containing component	1,2,4,5-tetrakis(phenylethynyl) benzene, 1,2,4-tris(phenylethynyl) benzene, 1,3,5-tris(phenylethynyl)benzene
wherein the <b>iron nanoparticles homogeneously dispersed throughout</b>		

(summary of claim 1)

Ting et al. (US 5,389,400) disclose a carbon/carbon composite obtained by the steps comprising (a) producing vapor grown carbon fibers by the pyrolysis of a hydrocarbon gas in the presence of a small particles of iron having diameters less than 10 nm, which are spread on a substrate as a catalyst for fiber growth at 900°C under a mixture of methane and hydrogen, (b) forming a preform from the resulting carbon fiber, (c) carbonizing the preform at 900°C over a three day period, and then (d) carbonizing, the carbonized preform at 2800°C prior to densification (Example 1). However, Ting et al. (US 5,389,400) does not teach or fairly suggest a composition comprising nanoparticles homogeneously dispersed throughout and fails to teach or suggest the particularly claimed process used to form the composition.

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



**LING-SUI CHOI**  
**PRIMARY EXAMINER**

December 10, 2004